

## ABSTRACT

Methods and compositions for modulating mammalian gamete adhesion are provided. Representative modulators of gamete adhesion include, but are not limited to polypeptides comprising at least one discoidin/C domain, and optionally at least one EGF domain. A representative polypeptide includes, but is not limited to SED1 polypeptides (SEQ ID NOs. 2-7), prodrugs, fragments, or derivatives thereof. Methods for identifying modulators of SED1-mediated gamete adhesion are also provided.